

REMARKS

By the foregoing Amendments, claims 1 and 8 are amended and claims 2 and 3 are cancelled, leaving claims 4-7 pending and under consideration. Support for this amendment is found in the previous claim set and in the original specification. Thus, Applicants submit that no new matter has been added.

Reconsideration and withdrawal of the objections and rejections in the outstanding Office Action are respectfully requested in view of the foregoing amendments and the following remarks.

Priority

Applicants note with appreciation that the Examiner has acknowledged the claim for priority and indicated that the certified copy of the priority document has been received by the Office.

Drawings

Applicants note with appreciation that the Examiner has indicated acceptance of the drawings filed on October 12, 2005.

Specification

The Office Action objects to the specification because of the following informalities. (A) The specification does not indicate that the case is national stage of International Application No. PCT/JP04/07593 filed on May 26, 2004. (B) The word "spice" (page 7, line 23) should apparently be changed to --species--. (C) The word "describe" (page 15, line 14) should

apparently be changed to --described--. In view of the foregoing Amendments to the specification, Applicants respectfully request withdrawal of these objections.

Claim Rejections – 35 U.S.C. § 103

The Office Action rejects claims 1-4, 7, and 8 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,873,523 (Gomez et al.) in view of U.S. Patent No. 3,503,704 (Marks). The Action asserts that Gomez et al. discloses a mist-creating process and a mist of charged fine particulate water having diameters of several tens of nanometers, except for the use of radicals and acidic chemical species in the water. In the attempt to cure the deficiency of radicals and acidic chemical species, the Action relies on Marks, which discloses sodium hydroxide (i.e. hydroxyl radicals) and acidic species with the water in a mist-creating process.

In response, Applicants respectfully traverse the position that the combination of Gomez et al in view of Marks would render the claimed invention obvious. Initially, Applicants note that Marks fails to disclose that charged droplets of water contain radicals. It is respectfully noted that the droplets 23 depicted in the mist-creating process in Marks have been marked with a plus sign to indicate a positive charge impressed thereon; but the particles may be charged either positively or negatively (column 3, lines 5-8). This means that the droplets are ionized in the mist creating process. The Action further asserts that Marks discloses sodium hydroxide dissolved in the charged water droplets as one example of charged water droplets containing radicals. However, Applicants respectfully submit that sodium hydroxide by itself is not a radical but an ionic-bonded inorganic compound which generally forms hydroxyl anions in an aqueous medium. Marks also discloses that the purpose of the charged droplet containing sodium hydroxide is to

detoxify or neutralize acidic chemical wastes such as sulfuric acid or sulphuric acid in fumes (column 4, lines 27-32).

Furthermore, Applicants note that the charged fine particulate water of the present invention is generated by Rayleigh fission. For example, Rayleigh fission of water transferred to a needle end of the water transfer member 2 is caused by applying a high voltage to the water on the needle end, so that electrostatic atomization is achieved to generate the charged fine particulate water containing radicals of the present invention (page 5, lines 14-27). In contrast to the presently claimed invention, Gomez et al. (column 3, lines 15-31) and Marks (column 3, lines 1-9) disclose that charged droplets are generated by an electric field-induced ionization method. Moreover, Gomez et al. and Marks are silent with respect to Rayleigh fission. Accordingly, Applicants respectfully submit that Gomez et al. and Marks do not teach and suggest all of the elements of the claims, and a person of ordinary skill in the art would not employ or combine Gomez et al. with the teachings of Marks to generate the charged droplets containing both radicals and acidic chemical species, as suggested by the Office.

The Office Action also rejects claims 5 and 6 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,873,523 (Gomez et al.) in view of U.S. Patent No. 3,503,704 (Marks) and U.S. Patent No. 5,914,454 (Imbaro et al.). The Action states that Imbaro et al. discloses electrically sprayed charged droplets which can contain various different compounds, e.g., acidic, basic species or sodium chloride.

In response, Applicants respectfully traverse this rejection. Applicants submit that Imbaro et al. does not cure the deficiencies of Gomez et al. and Marks. More specifically, Imbaro et al. does not teach or suggest or motivate one of ordinary skill to include the implementation of Rayleigh fission to generate the charged fine particulate water. For at least this reason, none of

the above documents with alone or in combination render the presently claimed invention therein.


Thus, in conclusion, Applicants respectfully submit that the cited documents alone, or in combination, fail to establish a *prima facie* case of obviousness. Applicants respectfully request reconsideration and withdrawal of the outstanding rejections of record.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The U.S. Patent and Trademark Office is hereby authorized to credit any overpayment or charge any additional fee to Deposit Account No. 19-0089.

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